

REMARKS

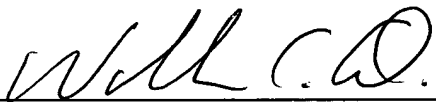
Consideration of this application, as amended, is respectfully requested.

The claims have been amended to remove multiple dependencies and to more particularly point out and distinctly claim that which Applicants regard as the invention. Support for all new claims is found in the claims and specification as originally filed. No new matter has been added.

Applicants have included the fees due for additional claims. In the event of a fee discrepancy, please charge our Deposit Account No. 50-0552.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: 
William C. Gehris
Reg. No. 38,156

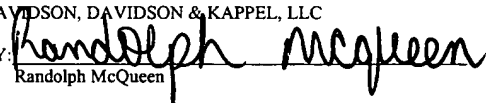
Davidson, Davidson & Kappel, LLC
485 Seventh Avenue - 14th Floor
New York, New York 10018
(212) 736-1940

"Express Mail" mailing label no.: EL 743184115 US

Date of deposit: May 24, 2001

I hereby certify that this correspondence and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231"

DAVIDSON, DAVIDSON & KAPPEL, LLC

BY: 
Randolph McQueen

Application of: KRAMER et al.
International Application No. PCT/DE99/03732
Filed Herewith

**VERSION OF SPECIFICATION AND CLAIMS AMENDMENTS
WITH MARKINGS TO SHOW CHANGES MADE**

Applicants request that the following Amendments be made in the above-identified matter prior to examination thereof:

IN THE SPECIFICATION

Before paragraph [0001], [Description] BACKGROUND INFORMATION

On page 17, paragraph [0058]:

[0058] The polymerase chain reaction after reverse transcription (rt-PCR) was used to detect pKe#83-specific mRNA in cells (NHEK) of keratinocyte sheets after dispase treatment and in HaCaT cells. To this end, RNA was isolated from cells of keratinocyte sheets after dispase treatment and incubation for various intervals of time, and from HaCaT cells using standard methods (guanidinium-thiocyanate-phenol-chloroform extraction method) and rewritten to cDNA according to standard methods. This cDNA was subjected to a PCR, during which a partial fragment of 388 kb was amplified from the pKe#83-specific cDNA. A combination of the primers „pKe#83-forward 10“ (¹⁰³²GAATAGACCAGAGATGAAAAGGCAG¹⁰⁵⁶)(SEQ ID NO:9) and „pKe#83-reverse 17“ (¹⁴¹⁸CGGTTTCAGCAGCTCATACC¹³⁹⁹)(SEQ ID NO:10) was used as the primer pair. 10 ng of cDNA were mixed with 10 mM of primer along with a mixture of heat-stable DNA polymerase, ATP, TTP, GTP, CTP and polymerase buffer (e.g., compare: *Current protocols in Molecular Biology*, Vol. 1, 1997, John Wiley & Sons. Inc, Suppl. 37, Chapter 15), in this example in the form of the commercially available, ready-to-use „PCR master mix“ from Clontech. In addition, the following control tests were performed: 1. The batch described above with the plasmid pUEX-1/pKe#83 instead of the cDNA („positive control“); 2. The reaction batch described above without added cDNA („negative control“); 3. The batch described above with GAPDH-specific primers (#302047, stratagenes; „GAPDH control“).

On page 29, first line, change "CLAIMS" to --WHAT IS CLAIMED IS--.

IN THE CLAIMS:

Please **amend** claims 1-22 as follows without prejudice:

1. (Amended) An isolated [Isolated] polypeptide,
which is functionally identical [or similar] to a protein that occurs naturally in human epidermal keratinocytes and which is upwardly adjusted, specifically increasingly expressed when the keratinocytes are in an activated state characterized by an elevated expression of the activation markers uPA and uPA-R, and
which comprises an [has the] amino acid sequence indicated in either [the] SEQ ID NO:3, [or] SEQ ID NO:4, [or] SEQ ID NO:6 or SEQ ID NO:8 sequence protocol, or an allele or derivative thereof obtained through amino acid substitution, deletion, insertion or inversion [from the latter],
[wherein SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 6 and/or SEQ ID NO: 8 are a constituent of this claim,]
and wherein the amino acid sequences obtained through amino acid substitution, deletion, insertion or inversion as an allele or derivative are suitable for influencing cell morphology, cell proliferation, cell adhesion, cell migration and/or cell differentiation.
2. (Amended) An isolated [Isolated] nucleic acid,
that codes a protein according to claim 1,
comprising [and that has] the nucleotide sequence indicated in either [the] SEQ ID NO:1 sequence protocol or [the] SEQ ID NO:7 sequence protocol or a nucleotide sequence complementary to one of these two or a partial sequence of one of these two nucleotide sequences,
or a nucleotide sequence that hybridizes wholly or in part with one of these aforementioned nucleotide sequences [, wherein SEQ ID NO: 1 and SEQ ID NO: 7 are constituents of this claim].

3. (Amended) An isolated [Isolated] nucleic acid according to claim 2, wherein said [characterized by the fact that this] nucleic acid is obtained from a natural, synthetic or half-synthetic source.
4. (Amended) An isolated [Isolated] nucleic acid according to claim 2 [or 3], wherein said [characterized by the fact that this] nucleic acid is a cDNA.
5. (Amended) An isolated [Isolated] nucleic acid according to claim 2 [one of claims 2 or 3], wherein said [characterized by the fact that this] nucleic acid is a sense or antisense oligonucleotide[,], which encompasses at least 6 [, preferably 8 to 25] nucleotides, and hybridizes with the nucleotide sequence indicated in sequence protocol SEQ ID NO:1 or sequence protocol SEQ ID NO:7 or partial sequences thereof.
6. (Amended) An isolated [Isolated] nucleic acid according to claim 2 [one of claims 2 or 3], wherein said [characterized by the fact that this] nucleic acid is a splice variant, which hybridizes with the nucleotide sequence indicated in sequence protocol SEQ ID NO:1 or in sequence protocol SEQ ID NO:7.
7. (Amended) An isolated [Isolated] nucleic acid according to claim 6, wherein said [characterized by the fact that this] nucleic acid is a splice variant, which comprises [has] the nucleotide sequence indicated in sequence protocol SEQ ID NO: 2 or SEQ ID NO: 5.
8. (Amended) An isolated [Isolated] polypeptide, comprising [characterized in that it has] an amino acid sequence resulting from a splice variant of an mRNA, which comprises [has either] the nucleotide sequence indicated in sequence protocol SEQ ID NO:1 or in sequence protocol SEQ ID NO:7, or the nucleotide sequence complementary to one of these two, or a partial sequence of one of these nucleotide sequences, or a nucleotide sequence that hybridizes wholly or in part with one of these nucleotide sequences,

wherein said peptide [that it] is upwardly adjusted in activated human epidermal keratinocytes showing an elevated expression of the activation markers uPA and uPA-R, and [that it] is suitable for influencing cell morphology, cell proliferation, cell adhesion, cell migration and/or cell differentiation.

9. (Amended) An isolated [Isolated] polypeptide, [characterized by the fact that it has] wherein said polypeptide comprises an amino acid sequence resulting from a splice variant of an mRNA, which comprises [has] the nucleotide sequence indicated in sequence protocol SEQ ID NO:2 or sequence protocol SEQ ID NO:5.

10. (Amended) An isolated [Isolated] polypeptide according to claim 9, [characterized by the fact that it has] wherein said polypeptide comprises the amino acid sequence indicated in sequence protocol SEQ ID NO:4 or sequence protocol SEQ ID NO:6[, wherein SEQ ID NO:4 and SEQ ID NO:6 are constituents of this claim].

11. (Amended) A recombinant [Recombinant DNS] DNA vector molecule, which comprises [encompasses] a nucleic acid according to claim 2 [one of claims 2 to 7], and which has the ability to express a protein that occurs in human keratinocytes and is increasingly expressed in activated keratinocytes, in a prokaryotic or eukaryotic cell.

12. (Amended) The recombinant [Recombinant DNS] DNA vector molecule according to claim 11, [characterized by the fact that] wherein the vector molecule is a derivative of the plasmid pUEX-1 or plasmid pGEX-2T or plasmid pcDNA3.1.

13. (Amended) The recombinant [Recombinant DNS] DNA vector molecule according to claim 12, [characterized by the fact that] wherein the vector molecule is a construct according to the vector protocol on Fig. 2 or the vector protocol on Fig. 3 [, wherein these vector protocols on Fig. 2 and Fig. 3 are constituents of this claim].

14. (Amended) A transformed [Transformed] host cell containing a nucleic acid according to claim 2 [one of claims 2 to 7], wherein the nucleic acid [which] is coupled with an activatable promotor contained in the host cell naturally or as the consequence of a recombination, and which has the ability to express a protein that occurs in human keratinocytes and is increasingly expressed in activated keratinocytes.
15. (Amended) A transformed [Transformed] host cell according to claim 14, [characterized by the fact that] wherein the promotor is the cytokeratin-14 promotor and the host cell is a keratinocyte, or [that] the promotor is the CMV promotor and the host cell is a cos cell.
16. (Amended) Use of a nucleic acid according to claim 2 [or a vector molecule according to one of claims 11 to 13] for manufacturing transgenic mammals.
17. (Amended) Use of a polypeptide according to claim 1 [or claim 8] for manufacturing an antibody against this polypeptide and/or proteins related thereto.
18. (Amended) Use according to claim 17, [characterized by the fact that] wherein the antibody is used for diagnosis or [the diagnostic and/or] therapeutic treatment [in particular of dermatological diseases, or for the] or cosmetic treatment.
19. (Amended) An antibody [Antibody] that reacts specifically with a polypeptide according to claim 1 [or claim 8].
20. (Amended) A reagent [Reagent] for the indirect detection of a protein that occurs in human keratinocytes and is increasingly expressed in activated keratinocytes, [characterized by the fact that] wherein the reagent is manufactured using at least one nucleic acid according to claim 2 [one of claims 2 to 6 and/or a polypeptide according to claim 1 or claim 8].

21. (Amended) The use [Use] of a sense or antisense oligonucleotide according to claim 5 [or claim 6] for the diagnosis [diagnostic and/or] or therapeutic treatment in particular of dermatological diseases, or for cosmetic treatment.

22. (Amended) The use [Use] of a polypeptide according to claim 1 [or claim 8 or a nucleic acid according to claim 2] for identifying substances with medical, cosmetic or pharmacological applications, which bind to the polypeptide [or nucleic acid,] and thereby influence its function and/or expression.